

Alternative Plan Formulation

Kissimmee Basin Modeling and Operations Study

Alternative Plan Formulation: The Alternative Plan Formulation Process will identify the three top-scoring alternative plans that meet all constraint indicators. These alternative plans will be promoted to alternative evaluation. Alternative plan formulation uses a more detailed modeling tool that incorporates the full hydraulics of the surface water system. The USACE will conduct their flood control evaluations using the same tool, concurrent with the KBMOS formulation evaluations, to ensure plans identified for promotion to evaluation meet USACE flood control requirements. Plans that violate flood control constraints will be reformulated to meet those constraints. During alternative plan formulation, only the parameters within the plan components from screening will be adjusted to improve the performance of the alternative plans. There will be no new alternative plans or additional modifications to the performance measures or scoring and weighting functions. The final Alternative Evaluation System will be applied once all evaluations and reformulations are complete to identify the three top-performing alternative plans to promote to the final round of evaluation.

Formulation Tool: The formulation tool is a surface water hydraulic routing model similar to the screening tool, except that it provides a greater level of detail on the conveyance of water. The formulation tool will be used to evaluate whether alternative plans meet USACE flood control requirements and for ranking and promotion of alternative plans to the final evaluation round of the Alternative Plan Selection Process. The formulation tool selected is the MIKE 11 modeling package by DHI Water and Environment, Inc. (Earth Tech 2005b).